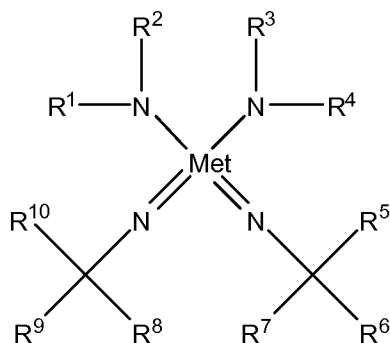


## **REMARKS**

### **I. 35 USC §102**

Claims 59 and 72 were rejected under 35 USC §102(b) as allegedly being anticipated by Sun et al. (US 6,114,242 or US 6,359,160). The Office Action notes that Sun et al. describes a precursor bisdiethylamido-bis(*tert*-butylimido)-molybdenum (BDBTM), which allegedly anticipate or render obvious the claimed compound (pages 2 and 3 of Office Action). Applicants respectfully disagree.

BDBTM described by Sun et al. has the following formula:



where  $R^1 - R^4$  are ethyl and  $R^5 - R^{10}$  are methyl. However, claim 59 explicitly excludes this compound (“where when Met is Mo and  $R^5 - R^{10}$  are methyl,  $R^1 - R^4$  are not ethyl”). Accordingly, Sun et al. cannot be relied upon to render claims 59 and 72 anticipated. Withdrawal of the rejection is respectfully requested.

### **II. 35 USC §103**

Claim 60 was rejected under 35 USC §103(a) as being unpatentable over Sun et al. The Office Action asserts that “Mo and W are functional equivalent, the same group of transition metal, therefore, it would have been obvious to those skilled in the art by use of analogous compounds with tungsten in place of molybdenum to arrive at the claimed compound. Also, see lines 18-19 on page 7 of the present specification.” Applicants respectfully traverse the rejection.

“[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR International Co. v. Teleflex Inc.*, 550 U.S. 1727, 1741 (2007) (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)). Here, the only articulated reasoning provided in the Office Action to support the legal conclusion of obviousness is reference to page 7, lines 18-19 of the instant specification. However, this section is located in the “Summary of Invention.” Applicants respectfully submit that statements the Applicants asserts as being part of their invention cannot be used as prior art to support an obviousness rejection against the Applicants.

Moreover, Applicants submit that Sun et al. only describes the *use* of BDBTM to form a molybdenum nitride barrier layer, but fails to describe *how to synthesize* the BDBTM precursor. No mention of any starting reagents or the like to obtain BDBTM is provided in Sun et al. Absent any information on how to even begin to synthesize the BDBTM, Applicants submit one of ordinary skill in the art would not be able to modify the descriptions provided in Sun et al. to arrive at the compound claimed in claim 60.

Accordingly, Applicants submit that claim 60 is not obvious in light of Sun et al. Withdrawal of the rejection is respectfully requested.

### **III. 35 USC §112, first paragraph**

Claims 59, 60, and 72 were rejected under 35 USC §112, first paragraph, as allegedly failing to comply with the enablement requirement. In particular, the Office Action asserts that “those excluded compounds are preferable compounds in the present invention.” (Page 3 of Office Action). Applicants respectfully disagree.

At the outset, none of the examples noted throughout the specification were denoted as “preferable compounds.” Rather, Applicants explicitly noted that the examples “are presented for the purpose of illustration only and . . . are not limiting of the invention” (page 13, lines 12-14).

Moreover, Example 1 of the specification describes bisdimethylamido-bistertbutylimido-tungsten and Example 2 of the specification describes bisethylmethylamido-bistertbutylimido-tungsten, and page 10, lines 9-13 explicitly states that “[a]s would be appreciated by one of ordinary skill in the art, other similar tungsten precursors may be prepared by similar reactions, by substituting other amines for *tert*-butyltrimethylsilylamine and other lithium alkylamides for lithium dimethylamide.” In fact, the MPEP explicitly notes that “lack of working examples . . . should *never* be the sole reason for rejecting the claimed invention on the grounds of lack of enablement.” (MPEP §2164.02; emphasis added). Hence, Applicants submit that the specification, taken as a whole and considering all of the *In re Wands* factors together, allows one of ordinary skill to practice the invention without undue experimentation.

In view of the above remarks, Applicants consider the pending application is in condition for allowance. Applicants further request rejoinder of the withdrawn claims upon indication of allowance of the pending claims. Early notification of such allowance and rejoinder is earnestly solicited.

Applicants believe no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 08-0219, under Order No. 0042697.00147US2 from which the undersigned is authorized to draw.

Respectfully submitted,

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/Yung-Hoon Ha/  
Yung-Hoon Ha  
Registration No.: 56,368  
Agent for Applicant(s)

Wilmer Cutler Pickering Hale and Dorr LLP  
60 State Street  
Boston, Massachusetts 02109  
(617) 526-6000 (telephone)  
(617) 526-5000 (facsimile)